

REMARKS

In the Final Office Action of March 12, 2008, claims 30-32 were rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claim 26 of U.S. Patent No. 5,852,741, claim 10 of U.S. Patent No. 5,787,302, claim 10 of U.S. Patent No. 5,826,054, and claim 3 of U.S. Patent No. 5,878,267. In addition, claims 30-32 were also rejected under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent No. 5,500,942 (“Eickemeyer et al.”). Furthermore, claims 30-32 were also rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent No. 5,632,024 (“Yajima et al.”) in view of U.S. Patent No. 5,057,837 (“Colwell et al.”) and U.S. Patent No. 4,858,104 (“Matsuo et al.”).

With respect to the obviousness-type double patenting rejections of claims 30-32, Applicants hereby submit a terminal disclaimer to overcome these rejections. Thus, Applicants respectfully request that these rejections be withdrawn.

With respect to the Section 102 and 103 rejections of claims 30-32, Applicants respectfully assert that the independent claim 30 is neither anticipated by Eickemeyer et al. nor obvious in view of Yajima et al., Colwell et al. and Matsuo et al., as explained below. In view of the following remarks, Applicants respectfully request the allowance of pending claims 30-32.

I. Patentability of Independent Claim 30

The independent claim 30 was rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Eickemeyer et al. and under 35 U.S.C. 103(a) as allegedly being obvious in view of Yajima et al., Colwell et al. and Matsuo et al. However, the cited references fail to disclose each limitation of the independent claim 30. Thus, the independent claim 30 is neither anticipated by Eickemeyer et al. nor obvious in view of Yajima et al., Colwell et al. and Matsuo et al.

A. Patentability of Independent Claim 30 Under U.S.C. 102(e)

The independent claim 30 recites “*a first instruction including a format field that specifies an instruction compression format,*” and “*a second instruction, following the first instruction, that is compressed according to the format field in the first instruction,*” which are not disclosed in the cited reference of Eickemeyer et al. Thus, the independent claim 30 is not anticipated by the cited reference of Eickemeyer et al.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Office Action on pages 4 and 5 alleges that the cited reference of Eickemeyer et al. in column 13, lines 20-22, discloses the claim limitation of “*a first instruction including a format field that specifies an instruction compression format,*” as recited in claim 30. In support of this allegation, the Office Action makes the following assertion: “variable length instructions are compressed in that they are not fixed length instructions and relatively smaller instructions in comparison to other instructions do not need any filler bits and they are compressed into memory from a standard fixed length implementation.” However, this assertion is not supported by the cited reference of Eickemeyer et al.

First of all, the cited reference of Eickemeyer et al. does not teach that “[the variable length instructions] are compressed into memory from a standard fixed length implementation.” Applicant has carefully reviewed Eickemeyer et al. and has failed to find support for this assertion. If Eickemeyer et al. does in fact teach this assertion, Applicants respectfully request that the Examiner cites where support for this assertion can be found in Eickemeyer et al.

Second, the cited reference of Eickemeyer et al. does not teach that “relatively smaller instructions in comparison to other instructions do not need any filler bits.” Applicant has carefully reviewed Eickemeyer et al. and has failed to find support for

this assertion. In fact, there is no mention of any “filler bits.” If Eickemeyer et al. does in fact teach this assertion, Applicants respectfully request that the Examiner cites where support for this assertion can be found in Eickemeyer et al.

In addition, the Office Action on page 5 states that “[f]or example, a first instruction which indicates a next instruction begins in two bytes, wherein an instruction can be up to six bytes long, specifies that the next instruction is essentially compressed into memory by four extra bytes.” Applicant does not fully understand this statement. This example merely points out that instructions can be of variable lengths, as explained in Eickemeyer et al. The presence of variable length instructions does not necessary mean that shorter instructions have been compressed.

Furthermore, as admitted in the Office Action on page 4, the cited reference of Eickemeyer et al. discloses that “the first instruction starts with the first byte, the value in the **length field** for the first byte **indicates where the second instruction starts**” (emphasis added). Clearly, a length field that indicates where the second instruction starts is not the same as “*a format field that specifies an instruction compression format,*” as recited in the independent claim 1. The length field described in Eickemeyer et al. does not and cannot specify “*an instruction compression format,*” which is the instruction compression format according to which the second instruction is compressed.

Since the cited reference of Eickemeyer et al. fails to disclose the claimed limitations of “*a first instruction including a format field that specifies an instruction compression format,*” and “*a second instruction, following the first instruction, that is compressed according to the format field in the first instruction,*” the independent claim 30 is not anticipated by cited reference of Eickemeyer et al.

B. Patentability of Independent Claim 30 Under U.S.C. 103(a)

The claim limitation of “*a first instruction including a format field that specifies an instruction compression format*” is also not disclosed in the cited

references of Yajima et al., Colwell et al. and Matsuo et al. Thus, the independent claim 30 is not obvious in view of these references.

The Office Action on page 9 states that “examiner has relied upon the mask word which specifies how an instruction is compressed to teach the claimed limitation.” However, as explained in the previous response, the cited reference of Colwell et al. fails to disclose the limitation of “*a first instruction including a format field that specifies an instruction compression format*,” as recited in the independent claim 30. That is, the cited reference of Colwell et al. fails to disclose an instruction that includes a field that specifies an instruction compression format. This is a critical point since if Colwell et al., as well as the other cited references, do not teach this limitation, then the independent claim 30 cannot be rendered obvious because even if the teachings of all the cited references are combined, the claimed invention of claim 30 cannot be derived. Applicants maintain that none of the cited references discloses the limitation of “*a first instruction including a format field that specifies an instruction compression format*,” as recited in the independent claim 30.

The Office Action on page 7 states “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Colwell with the invention of Yajima in order to increase system performance while avoiding the necessity of referring back to a slower memory” and “[n]ote that the overall combination thus entails an instruction which includes a format field that specifies an instruction compression format which determines how the instruction is compressed.” However, Applicants fail to see how the teaching of Colwell et al. can possibly lead to the use of a format field of an instruction to determine how the instruction is compressed when the cited references fail to disclose using a field of an instruction for such purpose. Clearly, the Office Action has merely stated a desired conclusion without any logical line of reasoning to show why the desired conclusion is obvious from the teachings of Yajima et al. and Colwell et al. The fact of the matter is that Colwell et al. does not teach or suggest using an instruction with a format field that specifies an instruction compression format.

Since the claim limitation of “*a first instruction including a format field that specifies an instruction compression format*” is not disclosed or suggested in any of

the cited references of Yajima et al., Colwell et al. and Matsuo et al., the independent claim 30 is not obvious in view of these references. As such, Applicants respectfully request that the independent claim 30 be allowed.

II. Patentability of Dependent Claims 31 and 32

Each of the dependent claims 31 and 32 depends on the independent claim 30. As such, these dependent claims include all the limitations of the independent claim 30. Therefore, Applicants submit that these dependent claims are allowable for the same reasons as the independent claim 30. Furthermore, these dependent claims may be allowable for additional reasons.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,
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Date: May 12, 2009

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